

REMARKS

In accordance with the foregoing, claims 19-26 and 28-32 have been amended, and claims 34-37 have been added. No new matter is being presented, and approval and entry are respectfully requested.

Claims 19-26 and 28-37 are pending and under consideration.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

If there are any additional fees associated with filing of this Preliminary Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,
STAAS & HALSEY LLP

Date: 6/25/03

By: 

Stephen T. Boughner
Registration No. 45,317

700 Eleventh Street, N.W.
Suite 500
Washington, D.C. 20001
Telephone: (202) 434-1500
Facsimile: (202) 434-1501

CERTIFICATE UNDER 37 CFR 1.8(a)
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on 6/25, 2003
By: M. Spatic
Date: 6/25/03

MARKED UP CLAIM AMENDMENTS

IN THE CLAIMS

Please AMEND claims 19-26 and 28-32 as follows. The remaining claims are reprinted, as a convenience to the Examiner.

1-18. (PREVIOUSLY CANCELED)

19. (TWICE AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, [An adaptive writing circuit for writing input data on an optical recording medium using a write pulse for a light source and whose waveform comprises a first pulse, a last pulse and a multi-pulse train, the adaptive writing circuit]comprising:

a discriminator to discriminate a magnitude of [the]a present mark of [the] input data and magnitudes of [the]leading and/or trailing spaces of the present mark;

a generator to control [the]a waveform of [the]a write pulse in accordance with the magnitude of the present mark of the input data and the magnitudes of the leading and/or trailing spaces to generate an adaptive write pulse; and

a driver to drive [the]a light source by converting the adaptive write pulse into a current signal in accordance with driving power levels for respective channels for the adaptive write pulse.

20. (ONCE AMENDED) The recording and/or reproducing apparatus[adaptive writing circuit] according to claim 19, wherein the generator includes:

a write waveform controller to generate pulse width data to vary a width of [the]a first pulse of the write pulse in accordance with the magnitude of the leading space and the magnitude of the present mark and to vary a width of [the]a last pulse of the write pulse in accordance with the magnitude of the present mark and the magnitude of the trailing space; and

a write pulse generator to generate the adaptive write pulse in accordance with the pulse width data.

21. (ONCE AMENDED) The recording and/or reproducing apparatus[adaptive writing circuit] according to claim 20, wherein the write waveform controller comprises a memory in which the pulse width data of the first and/or last pulses of the write pulse waveform are stored, by grouping the magnitude of the present mark and the magnitudes of the leading and/or trailing spaces, into a short pulse group, a middle pulse group or a long pulse group.

22. (ONCE AMENDED) The recording and/or reproducing apparatus[adaptive writing circuit] according to claim 21, further comprising a microcomputer to initialize the write waveform controller and control the pulse width data stored in the memory to be updated in accordance with write conditions.

23. (ONCE AMENDED) The recording and/or reproducing apparatus[adaptive writing circuit] according to claim 21, wherein the memory stores the pulse width data of the first and/or last pulses of a write pulse waveform depending on whether the input data is in a land track or a groove track.

24. (ONCE AMENDED) The recording and/or reproducing apparatus[adaptive writing circuit] according to claim 21, wherein the memory stores the pulse width data of the first and/or last pulses of the write pulse waveform for respective zones on the optical recording medium.

25. (ONCE AMENDED) The recording and/or reproducing apparatus[adaptive writing circuit] according to claim 20, wherein light power for a predetermined one of channels of the adaptive write pulse is applied during a period corresponding to a varied width of the first pulse and during a period corresponding to a varied width of the last pulse.

26. (ONCE AMENDED) The recording and/or reproducing apparatus[adaptive writing circuit] according to claim 25, wherein [the]a light power for the predetermined channel is a read power or a write power.

27. (PREVIOUSLY CANCELED)

28. (ONCE AMENDED) The recording and/or reproducing apparatus[adaptive writing circuit] according to claim 19, wherein the generator generates pulse width data by varying a rising edge of [the]a first pulse of the write pulse in accordance with the magnitude of the leading space and the magnitude of the present mark.

29. (ONCE AMENDED) The recording and/or reproducing apparatus[adaptive writing circuit] according to claim 19, wherein the generator generates pulse width data by varying a falling edge of [the]a first pulse of the write pulse in accordance with the magnitude of the leading space and the magnitude of the present mark.

30. (ONCE AMENDED) The recording and/or reproducing apparatus[adaptive writing circuit] according to claim 19, wherein the generator generates pulse width data by varying a rising edge of [the]a last pulse of the write pulse in accordance with the magnitude of the trailing space and the magnitude of the present mark.

31. (ONCE AMENDED) The recording and/or reproducing apparatus[adaptive writing circuit] according to claim 19, wherein the generator generates pulse width data by varying a falling edge of [the]a last pulse of the write pulse in accordance with the magnitude of the trailing space and the magnitude of the present mark.

32. (ONCE AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium[An adaptive writing circuit for writing input data to a optical recording medium using a write pulse for a light source and whose waveform includes a first pulse, a last pulse and a multi-pulse train], comprising:

a generator to generate an adaptive write pulse by varying a falling edge of [the]a first pulse of the write pulse in accordance with a magnitude of a leading space and a magnitude of a present mark, and varying a falling edge of [the]a second pulse of the write pulse in accordance with the magnitude of a trailing space and the magnitude of the present mark; and

a driver to drive the light source according to the adaptive write pulse.

33. (AS UNAMENDED) An adaptive write pulse generating circuit, the adaptive write pulse being used for writing input data to a optical recording medium, comprising:

a write pulse inputting unit inputting a write pulse, the write pulse including a first pulse, a last pulse and a multi-pulse train;

a generator generating the adaptive write pulse by varying a falling edge of the first pulse in accordance with a magnitude of a leading space and a magnitude of a present mark, and varying a falling edge of the second pulse in accordance with a magnitude of a trailing space and the magnitude of the present mark; and

an outputting unit to output the generated adaptive write pulse.